against *T. solium* activated oncospheres. In the other hand, only the CHO —K1 cells were preincubated with 80 ug/ml of FN for 20 h and then the *T. solium* oncospheres with and without FN were added on monolayer cell. FN fibrils and oncospheres were visualized by immunofluorescence using polyclonal anti-FN antibody produced in rabbit by UV light microscopy.

Results: The adherence of *T. solium* oncospheres was increased from 70 ug/ml FN versus control. The fibrillar FN matrix on CHO—K1 cells were visualized over monolayer cell. Also, the adherence *T. solium* oncosphere with FN preincubate reacted with anti-FN antibody but with minor intensity versus control.

Conclusion: These results suggest that Fn increases the adherence of oncosphere of *T. solium* serving as a bridge between the *T. solium* oncosphere and cell. Additonal characterization of *T. solium* oncosphere fibronectin binding protein that interact with host components, will further our understanding of the adherence and could be markers as candidate a vaccines.

doi:10.1016/j.ijid.2010.02.2148

58.025

Ectopic knee tungiasis and historical aspects in Peru

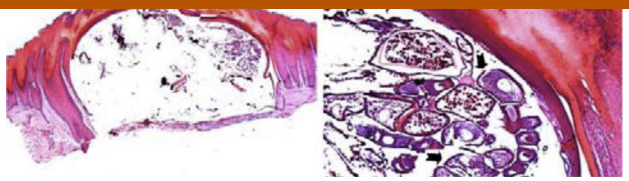
V. Maco[1,*], V. Maco C.[2], E. Gotuzzo[3]

[1] *Instituto de Medicina Tropical Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Lima, Peru*
[2] *Hospitales de la Solidaridad, Lima, Lima, Peru*
[3] *Instituto de Medicina Tropical Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru*

Background: Tungiasis is an zoonotic ectoparasitism caused by the penetration of the female sand flea *Tunga spp*. into the skin. It can be caused by two species: *Tunga penetrans* or *T. trimamillata*, and affects commonly distal lower extremities of individuals living in poverty-stricken villages or suburban areas. Although it has been a well known entity to Peruvian physicians and other care providers alike for centuries, little is known about its current epidemiology.

Methods: We present a rare case of knee tungiasis which was diagnosed by excisional biopsy. Briefly, the patient was a 7 years old mestizo female with no significant PMH, who lived in Villa El Salvador, Lima, a district with high poverty index. She complained of a painful nodule in her right knee that was noticed 3 weeks prior. Her dwelling was made of straw mats and lacked electricity and water supply.

Results: On physical examination, a 0.5 cm tender nodule with a central black dot was noticed in the extensor aspect of her right knee, surrounded by a whitish halo and mild redness around it. On microscopic examination, the epidermis showed hyperplasia, hyperkeratosis, parakeratosis, and a hemorrhagic area in the dermis. Multiple structures compatible with eggs in different stages of development (arrow heads) (Figure) were compatible with *Tunga* spp.



Conclusion: To our knowledge, our case is the first human tungiasis located in the knee. Evidence of tungaisis in Peru dates back before the Inca civilization and the Conquest of the Americas. Pre-Columbian, autochthonous inhabitants of the coast depicted tungiasis on mud pottery called *huacos*, as can be appreciated in anthropomorphic ornaments. Moreover, the first references in the local literature were made by the Peruvian Indian Guaman Poma de Ayala (∼1535/∼1619). Epidemiological data are scanty: a search on PubMed, Scielo, LILACS and MedLine produced no articles on epidemiology of tungiasis in Peru, except from a letter concerning the new species, and an isolated case report. With the description of a new species of *Tunga* and several Brazilian epidemiologic studies, tungiasis has regained the interest of the scientific community. Epidemiological studies with identification campaigns to understand the status of this ancient parasitisim in Peru is our next step.

doi:10.1016/j.ijid.2010.02.2149

58.026

Blastocystis hominis infection among patients with and without gastrointestinal disorders

M. Rostami Nejad[1,*], E. Nazemalhosseini Mojarad[2], H. Dabiri[3], M.R. Zali[4]

[1] *Centers for Gastroenterology and Liver Diseases, Shahid Beheshti University, M.C., Tehran, Iran, Islamic Republic of*
[2] *The Research center of Gastroenterology and Liver diseases, Shaheed Beheshti University, M.C, Tehran, Iran, Islamic Republic of*
[3] *Shahid Beheshti University, M.C., Tehran, Iran, Islamic Republic of*
[4] *Tehran, Iran, Islamic Republic of*

Background: Blastocystis hominis is a common microscopic parasite found in human fecal samples both from symptomatic patients and from healthy people. The aim of this study was conducted to investigate the epidemiology and clinical features of *Blastocystis hominis* among Iranian patients with and without GI symptoms.

Methods: Six hundred and seventy patients without GI and 670 patients withGI symptoms recruited during 2006-07. Standard microscopic examinations following *in vitro* culture were used to examine the stool samples for presence of trophozoites and cysts of *B. hominis*.

Results: Infection with *B. hominis* occurred most commonly in those with GI symptoms (5.67%) compared with those patients without GI symptoms (3.43%). The most common symptom in case group was abdominal pain (86.84%). *B. hominis* was mostly found with *Giardia lamblia* in case group and with *Entamoeba coli* in control group. In addition, there was no significant relation between the presence of GI symptoms and the incidence of *B. hominis*.

Conclusion: In the current study, with respect to no statically significant difference between case and control group in term of *B.hominis* prevalence ($P > 0.05$), we can express this hypothesis that support the idea which *B. hominis* is not a GI symptom ethological agent in contrast to other studies Iran. Thus, to confirm the complication is needed to additional study especially on molecular pathogenesis of this organism.

doi:10.1016/j.ijid.2010.02.2150

58.027

A Portuguese couple with eosinophilia: From the diagnosis to the treatment

C. Abreu*, S. Xerinda, A. Sarmento

Hospital S. João, Porto, Portugal

Background: Zoonotic diseases are hard to control and eliminating as they require coordination among veterinary, livestock and human health departments and frequently are neglected diseases.

Methods: We describe the work up of a young couple presenting with vague abdominal complains and marked eosinophilia.

Results: A 35 years-old man, and his wife, 25 years-old, both previously healthy, without international travel, living in a small town in the north of Portugal, presented to their medical doctor in October 08 complaining from right upper quadrant pain, asthenia, nausea, cutaneous pruritus and urticaria; they had lost 4 pounds of weigh in 3 months. One month before becoming ill they ingested uncooked watercress from local production; vomiting and diarrhoea occurred for a few days after the ingestion. Physical examination was unremarkable. Liver and renal function tests were normal except for GGT that was two times elevated; eosinophilia was revealed. In both 3 stool samples were negative for parasites; abdominal ultrasonography and pulmonary XR were normal. Serology titer for *Fasciola hepatica* (hemaglutination test) was high positive. Praziquantel was prescribed (while waiting for triclabendazol (TCB) importation) with a short course of steroids. Two months after no clinical or analytical improvement occurred. Praziquantel was repeated without sucesss; in both stool samples remains negative and abdominal ultrasonography normal. Magnetic resonance imaging (MRI) revealed multiple ill-defined subcapsular clustered areas of low attenuation, more sharply delineated after contrast administration (later images), more pronounced in female patient. Two months after triclabendazol prescription (no elicited side effects) they gain weight and feel well; eosinophilia was absent and serology titer dropped in the male patient but not in the female. They are still on observation.

	WBC cmm / Eosinophilis (%)		Fasciola Serology (Cut-off: 1/320)		
Date	Male	Female	Male	Female	Treatment
February	16640 / 43	17220 / 58	1/640	1/5000	PZQ (March)
May	15000 / 32	12240 / 44	1/2560	1/5120	PZQ (May)
July	13280 / 32	10820 / 42	1/1280	1/1280	TCB (July)
October	10580 / 9	6860 / 10	1/520	1/2560	–

Conclusion: The diagnosis of acute/prolonged acute fascioliasis is high probable in both patients. The value of MRI in the diagnosis/evolution is still questionable. The access to triclabendazol is not so easy, although the WHO donation program can be applied for endemic countries. Treatment before the chronic stage is needed. The control of livestock disease is urgent.

doi:10.1016/j.ijid.2010.02.2151

58.028

Role of serology, neuroimaging and stool examination in diagnosis of neurocysticercosis

K. Sapkota[1,*], K. Sapkota[2], S.P. Dumre[3], K. Malla[4], S. Singh[4]

[1] *District Hospital, Myagdi, Nepal*
[2] *New Mexico State University, Las Cruces, NM, USA*
[3] *Thammasat University, Faculty of Allied Health Sciences, Pathumthani, 12121, Thailand*
[4] *Manipal Teaching Hospital, Pokhara, Nepal*

Background: Neurocysticercosis(NCC) is a worldwide problem. It is the most common parasitic neurologic disease and the single most common cause of acquired epileptic seizures in the developing world. Many cases remain undiagnosed due to lack and expertise and lab facilities. and it remains a public health burden because of inability to identify and treat the intestinal carrier of the parasite. Currently it is diagnosed by detection of specific antibodies or by imaging techniques. The study is done to evaluate diagnostic significance of serology (ELISA) and neuroimaging technique in NCC and to determine the intestinal carrier of the parasite.

Methods: The tests (Neuroimaging, ELISA and stool routine and microscopy) was applied to neurocysticercosis patients, as well as to healthy controls and individuals with other parasitic infections. A total of 100 serum samples were obtained from patients meeting clinical, imaging and epidemiological criteria for neurocysticercosis. Samples were processed by enzyme-linked immune-sorbent assay. Controls included 50 serum samples from matched hospitalized controls with a diagnosis unrelated to Neurocysticercosis. Similarly, 50 serum samples from patients with parasitic infections different from cysticercosis.

Results: A total of 200 samples were analyzed. In samples from neurocysticercosis patients and healthy control individuals, the ELISA test showed an overall sensitivity of 80.7% (CI 95%) and a specificity of 85.4% (CI 95%). Out of 50 samples from patients with parasitic infections different from taeniasis, 8% were positive in ELISA. Abnormal neuroimaging is seen in 100% of the cases whereas confirmation of diagnosis by neuroimaging alone could be made only in 40% of the cases based on diagnostic criteria. Stool microscopic examination showing eggs of Taenia solium is seen in 18% of the cases.

Conclusion: The study indicated that Combined serology and neuroimaging should be done to confirm the diagnosis. Serology can be used as screening test for the diagnosis of cysticercosis. And all the patient should be treated for the intestinal carrier of the parasite as well.

doi:10.1016/j.ijid.2010.02.2152